Steps to test using three computers:

(since the computers use local node servers now for transmitting data it may not be possible to test this without three computers or three VM’s linked together with a software defined router of some sort)

Computer 1- user

Computer 2- provider

Computer 3- valuators

* Step 1: update code
  + install necessary libraries and programs necessary for all computers
    - first
      * execute: sudo apt-get update
    - Docker
      * follow the steps from the website:
      * after this all the necessary images should install the on the first use. (this removes the need to install individual tensorflow versions or python versions)
    - Nodejs
      * execute: $ sudo apt-get install nodejs
      * execute: $ sudo apt install npm
    - serve
      * execute $ npm install serve
  + all computers
    - open a terminal
    - navigate to gitLab folder and execute : $git pull
    - if gitLab has not already been download

execute: $ git clone https://github.com/taoluwork/gitLab.git

* + computer 1
    - navigate to gitLab/bcai\_2.0 and execute: $sudo npm install
    - this has caused me issues in the past and might require persuasion of the computer to install the necessary node modules
    - then navigate to gitLab/bcai\_2.0/client and repeat the npm install command (this can also result in errors too)
  + computer 2 and 3
    - navigate to gitLab/ML/localUser/
* Step 2: deploy contract
  + computer 1
    - navigate to gitLab/bcai\_2.0 and execute: $ truffle migrate--reset –network ropsten
    - if this step is resulting in errors delete the contracts located in gitLab/bcai\_2.0/client/src as well as make sure the node libraries have been added correctly then try again
* Step 3: deploy main page
  + computer 1
    - navigate to gitLab/bcai\_2.0/client and execute: $ npm run-script build
    - after this has finished execute: $ serve -s build
* Step 4: begin node servers
  + computer 1
    - open a second terminal and navigate to gitLab/ML/localUser
  + all computers:
    - execute: $ sudo npm install
  + computer 1:
    - execute: $ node localEnv.js --user {ip address}:3001
    - example: $ node localEnv.js --user 1.2.3.4:3001
  + computer 2:
    - execute: $ node localEnv.js --provider {ip address}:3001
  + computer 3:
    - execute: $ node localEnv.js --validator {ip address}:3001
* step 5: run the test
  + all computers
    - open a browser and go to the address listed on computer 1’s serving terminal window
    - now begin the experiment.
* Notes:
  + When uploading files make sure to put them in zip files first.
  + if you wish to change the role of a given computer end the localEnv.js server and restart it with the proper tag in as the command line argument
  + When downloading files when given download buttons, make sure to click it once, delete the folder form the document viewer, then repress the download button.
    - There seems to be some sort of time from when a file is created to when its data has been populated
  + if the web page does not load properly please refresh, sometimes it seems like some libraries take longer than others to properly load
  + when switching between accounts within meta mask, change it in the browser drop down then either click the switch mode button twice or reload the page to allow for the web page to focus on the proper account
    - I believe this can be solved with forcing a reload on the page when the account is changed, but that has not been addressed yet
  + try to not upload or resubmit the same requests multiple times, because it seems create confusing responses by the contract.